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CLAIMS

- 1. An isolated polynucleotide comprising or consisting of:
 - (a) a nucleotide sequence of SEQ ID NO: 1 or a modification, variant or fragment (part) thereof;
 - (b) a nucleotide sequence having at least 50% identity to the nucleotide sequence of (a);
 - (c) a nucleotide sequence capable of hybridising to a polynucleotide according to (a) or (b); preferaby under stringent conditions, or
 - (d) a fragment of a polynucleotide according to any one of (a) to (c).
- 15 2. A polynucleotide according to claim 1, comprising or consisting of a nucleotide sequence having at least 70% identity with a polynucleotide according to (a), or a sequence hybridising therewith, or a fragment.

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3. A polynucleotide according to claim 1, comprising or consisting of a nucleotide sequence having at least 75% identity with a polynucleotide according to (a), or a sequence hybridising therewith, or a fragment.

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4. A polynucleotide according to claim 1, comprising or consisting of a nucleotide sequence having at least 85% identity with a polynucleotide according to (a), or a sequence hybridising therewith, or a fragment.

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- 5. A polynucleotide according to claim 1, comprising or consisting of a nucleotide sequence having at least 90% identity with a polynucleotide according to (a), or a sequence hybridising therewith, or a fragment.
- 6. A polynucleotide according to claim 1, comprising or consisting of a nucleotide sequence having at least 95% identity with a polynucleotide according to (a), or a sequence hybridising therewith, or a fragment.
- 7. A polynucleotide according to claim 1, comprising or consisting of a nucleotide sequence having at least 97% identity with a polynucleotide according to (a), or a sequence hybridising therewith, or a fragment.
- 20 8. A polynucleotide fragment comprising or consisting of at least 5, 10, 15, 20, 25, 30 or more contiguous nucleotides of a polynucleotide according to any one of the preceding claims.
- 9. A probe or primer comprising or consisting of a polynucleotide fragment according to claim 8.
- 10. A recombinant DNA comprising or consisting of a polynucleotide30 sequence according to any one of the preceeding claims.

11. An isolated bacterium including a polynucleotide according to claim 1.

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12. An isolated bacterium according to claim 12 identified as Candidatus Endoecteinascidia frumentensis.

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